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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/777,773

02/12/2004

Kenneth Roger Jones

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60533

7590

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EXAMINER

NGUYEN, TOAN D

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/777,773	Applicant(s) JONES ET AL.	
	Examiner Toan D. Nguyen	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 13-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/24/04, 6/26/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4, 13-16, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porat et al. (US 2004/0057509) in view of Roth (US 2003/0061321).

For claims 1-4, Porat et al. disclose system and method for establishing an XDSL data transfer link, comprising:

detecting the presence of a powered-on network capable device (figure 2, reference 2-1) that is connected to a DSL modem on a local network (figure 2, reference 9) (page 3, paragraph [0062] lines 12-18).

However, Porat et al. do not expressly disclose:

establishing a network connection over a DSL line to the remote network after detecting the presence of the powered on network capable device on the local network;

terminating the network connection over the DSL line to the remote network after detecting an absence of network capable devices connected to the DSL modem on the local network;

releasing network resources supported by the remote network after the network connection is terminated.

In an analogous art, Roth discloses:

establishing a network connection over a DSL line (page 1, paragraph [0006] lines 1-2) to the remote network (figure 4, reference 40) after detecting the presence of the powered on network capable device on the local network (figure 4, reference 10) (page 3, paragraphs [0046]-[0048]);

terminating the network connection over the DSL line to the remote network (page 1, paragraph [0006] lines 1-2) after detecting an absence of network capable devices (figure 4, reference 10) connected to the DSL modem on the local network (figure 4, reference 50) (page 5, paragraph [0109], and paragraph [0111]);

releasing network resources supported by the remote network after the network connection is terminated (page 5, paragraph [0111]).

Roth discloses further comprising assigning a dynamic lease to the network capable device (page 4, paragraph [0061] as set forth in claim 2); further comprising determining when the dynamic lease expires (page 4, paragraph [0061] and paragraph [0073] as set forth in claim 3); further comprising terminating the network connection

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over the DSL line after detecting that the lease has expired (page 3, paragraph [0049] lines 1-6 as set forth in claim 4).

One skilled in the art would have recognized the establishing a network connection over a DSL line to the remote network after detecting the presence of the powered on network capable device, and would have applied Roth's network structure of the ADSL modem 50 in Porat et al.'s establish a data connection. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Roth's PPOA spoofing in point-to-point protocol over ATM using an XDSL modem in Porat et al.'s system and method for establishing an XDSL data transfer link with the motivation being formed a single network between the NAS 40 and the client PC 10 (page 3, paragraph [0045] lines 2-4).

For claim 13-16, Porat et al. disclose system and method for establishing an XDSL data transfer link, comprising:

the digital subscriber line router (figure 2, reference 9) including detection logic (figure 4, page 3, paragraph [0066] lines 1-18) to detect the presence of a powered-on network capable device (figure 2, reference 2-1) that is connected to the DSL router via a local network (page 3, paragraph [0062] lines 12-18); and

wherein a network connection is made over the digital subscriber line after the detection logic detects the presence of the powered-on network capable device on the local network (figure 2, reference 2-1) (paragraph [0062] lines 12-19, and paragraph [0077] lines 2-4).

However, Porat et al. do not expressly disclose a digital subscriber line between the digital subscriber line router and remote network. In an analogous art, Roth discloses a digital subscriber line (page 1, paragraph [0006] lines 1-2) between the digital subscriber line router (figure 4, reference 20) and remote network (figure 4, reference 40, page 1, paragraph [0015]).

Roth discloses PPOA wherein the digital subscriber line router terminates the network connection to the remote network over the DSL line after detecting an absence of any network capable devices connected to the DSL router via the local network (paragraphs [0109] and [0111] as set forth in claim 14), wherein the digital subscriber line router initiates release of network resources supported by a digital subscriber line network connection after the network connection has been terminated (paragraph [0111] as set forth in claim 15), wherein the network connection is a point to point over Ethernet connection (paragraph [0024] line 1 as set forth in claim 16).

One skilled in the art would have recognized the digital subscriber line between the digital subscriber line router and remote network, and would have applied Roth's ADSL modem 20 and remote network 40 in Porat et al.'s establish a data connection. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Roth's PPOA spoofing in point-to-point protocol over ATM using an XDSL modem in Porat et al.'s system and method for establishing an XDSL data transfer link with the motivation being formed a single network between the NAS 40 and the client PC 10 (page 3, paragraph [0045] lines 2-4).

For claims 19-22, Porat et al. disclose system and method for establishing an XDSL data transfer link, comprising:

a network capable device detection module (figure 4, page 3, paragraph [0066] lines 1-18), wherein the network capable device detection module is configured to determine whether a powered on network capable device (figure 2, reference 2-1) is connected to the DSL router (figure 2, reference 9) on a local network (page 3, paragraph [0062] lines 12-18); and when the network capable device detection module determines that a power on network capable device is connected to the DSL router on the local network (paragraph [0062] lines 12-19, and paragraph [0077] lines 2-4).

However, Porat et al. do not expressly disclose a DSL modem, wherein the DSL modem is configured to initiate a connection to a remote network. In an analogous art, Roth discloses a DSL modem (figure 4, reference 50), wherein the DSL modem is configured to initiate a connection to a remote network (figure 4, reference 40) (page 3, paragraphs [0046]-[0048]).

Roth discloses wherein the network capable device detection module is further configured to detect an absence of a network capable device connected to the DSL router on the local network (paragraphs [0109] and [0111] as set forth in claim 20), wherein the DSL modem is further configured to terminate a connection to the remote network when no network capable device is connected to the DSL router on the local network (paragraphs [0109] and [0111] as set forth in claim 21), further comprising a dynamic lease assignment module, wherein the dynamic lease assignment module is configured to assign a dynamic lease to a network capable device on the local network,

and wherein the DSL modem is further configured to terminate a connection to the remote network after an assigned dynamic lease has expired (paragraphs [0109]-[0111] as set forth in claim 22).

One skilled in the art would have recognized the a DSL modem, wherein the DSL modem is configured to initiate a connection to a remote network, and would have applied Roth's ADSL modem 50 and remote network 40 in Porat et al.'s establish a data connection. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Roth's PPOA spoofing in point-to-point protocol over ATM using an XDSL modem in Porat et al.'s system and method for establishing an XDSL data transfer link with the motivation being formed a single network between the NAS 40 and the client PC 10 (page 3, paragraph [0045] lines 2-4).

4. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth (US 2003/0061321) further in view of Johnson et al. (US 2004/0109457).

For claim 17, Roth discloses PPOA spoofing in point-to-point protocol over ATM using an XDSL modem, comprising:

a digital subscriber line router (figure 2, reference 20) (page 1, paragraph [0015] line 7); and

a digital subscriber line (page 1, paragraph [0006] lines 1-2) between the digital subscriber line router (figure 4, reference 20) and the remote network (figure 4, reference 40), wherein a network connection is made over the digital subscriber line after the lease assignment logic has assigned a lease to the network capable device (page 3, paragraphs [0046]-[0048], and page 4, paragraph [0061]).

However, Roth does not expressly disclose:

the digital subscriber line router including lease assignment logic to dynamically assign a lease to a network capable device to permit subsequent connection to a remote network.

In an analogous art, Johnson et al. disclose:

the digital subscriber line router including lease assignment logic to dynamically assign a lease to a network capable device to permit subsequent connection to a remote network (page 1, paragraph [0006] lines 7-13).

One skilled in the art would have recognized the digital subscriber line router including lease assignment logic to dynamically assign a lease to a network capable device, and would have applied Johnson et al.'s DSL modem in Roth's network structure of the ADSL modem. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Johnson et al.'s automatic network device route management in Roth's PPOA spoofing in point-to-point protocol over ATM using an XDSL modem with the motivation being administrator-defined time limit on the address assignment, call lease (page 1, paragraph [0006] lines 12-13).

For claim 18, Roth discloses wherein the digital subscriber line router determines that the dynamically assigned lease has expired and terminates the network connection over the digital subscriber line after detecting that the lease has expired (paragraphs [0109]-[0111]).

Response to Arguments

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5. Applicant's arguments filed 06/26/06 have been fully considered but they are not persuasive.

The applicant argues that the Office Action fails to establish a prima facie case of obviousness with respect to claims 1, 13, and 17. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the applicant argues that the central office xDSL modem (2-9) is not connected to the data source (2-1) on a local network. Therefore, the data source and central office xDSL modem of Porat do not disclose or suggest detecting the presence of a powered-on network capable device that is connected to a DSL modem on a local network as recited in claim 1. The examiner disagrees. Applicant's attention is directed to Porat at page 2, paragraph [0060] (see figure 2, reference 1), where Porat clearly teaches: "The xDSL data transfer system 1 for data transfer according to the present invention is shown in FIG. 2. The xDSL data transfer system comprises N data sources 2-1 to 2-N, each generating a data upstream signal. The data upstream signal is supplied via signal lines 3-1 to 3-N to the corresponding xDSL user modem 4-1 to 4-N. The xDSL user modem 4 consists of a conventional xDSL modem 5 which is connect to its output side via a line 6 to a wake-up signal generating unit 7 which generates a

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wake-up signal. The xDSL user modem is connected via a physical medium, e.g. a twisted telephone line (local network or LAN means), to a corresponding xDSL modem 9 within a central office 10. Each xDSL modem 9 within a central office 10 comprises a conventional xDSL modem 11 and a wake-up signal detection unit 12 for detecting a wake-up signal received via a telephone line 8." The applicant argues that the central office xDSL modem of Porat is connected to the user modem via a remote network. The examiner disagrees. At page 3, paragraph [0062] lines 12-18 (see figure 3), Porat teaches "When the user turn on the power of the user modem 4 and wishes to establish a data connection, the user modem 4 generates a wake-up signal and sends it via the telephone line 8 (local network or LAN means) to the corresponding xDSL modem 9 in the central office. The wake-up signal detection unit 12 detects a received wak-up signal and switches the xDSL modem 9 to an operation mode." (detecting the presence of a powered-on network capable device that is connected to a DSL modem on a local network means).

The applicant argues that Roh does not disclose or suggest this element of claim 1. In response, Roh in view of Porat does suggest this limitation in claim 1. On page 3, paragraph [0051]-[0053] (see figure 4), the examiner would like to summarize Roh's process steps: the client PC 10 booted (see paragraph [0051])(powered-on network capable device means), the client PC 10 is activated and broadcast a DHCPDISCOVER packet to seek a DHCP server 52 (see paragraph [0052], the DHCP server 52 of the ADSL modem 50 activates the process for opening the PPP session between the NAS 40 and the ADSL modem 50 in response to the receipt of the DHCPDISCOVER packet

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(see paragraph [0053])(connected to a DSL modem on a local network means). The motivation to combine Roh's PPPOA spoofing in point-to-point protocol over ATM using an xDSL modem in Porat would be to establish a network connection or to form a network for Porat's data sources 2-1-2-N.

With respect to claim 13, the applicant argues that the central office xDSL modem, user modem, and wake up signal of Porat do not disclose or suggest detection logic to detect the presence of a powered-on network capable device that is connected to the DSL router via a local network as recited in claim 13. The examiner disagrees. Applicant's attention is directed to Porat patent at page 3, paragraph [0066] (see figure 4), where Porat clearly teaches "FIG. 4 shows a block diagram of the wake-up signal detection unit 12 within an xDSL modem 9..." (detection logic to detect the presence of a powered-on network capable device that is connected to the DSL router via a local network means). For further details of detect the presence of a powered-on network capable device that is connected to the DSL router via a local network, please see the response in claim 1.

The applicant argues with respect to claim 17, that making a network connection before assigning a lease to a client PC does not disclose or suggest that a network connection is made over the digital subscriber line after the lease assignment logic has assigned a lease to the network capable device, as recited in claim 17. The examiner disagrees. Applicant's attention is directed to Roh patent at page 3, paragraph [0046], where Roh clearly teaches "When booted, a DHCP client of the application layer 100 (see FIG. 7) in client PC 10 broadcasts a DHCP-DISCOVER packet (see FIG. 5) to the

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network to locate a DHCP server. Since the only DHCP server to be encountered is DHCP server 52 in the ADSL modem 50, the DHCP server 52, receiving the DHCPDISCOVER packet, operates a PPP session to be opened to both the NAS 40 and the ADSL modem 50 and obtains from the IPCP 54 the IP configuration information, such as the global IP address (a lease means), the gateway IP address, and the DNS server address. In response to the DHCPDISCOVER packet, the ADSL modem 50 sends to the DHCP client a subnet mask packeted into a DHCPOFFER and a DHCPACK packet along with the IP configuration information received from the NAS 40. The DHCP client of the client PC 10 sets the IP configuration information into the client PC 10 in response to the DHCPACK. Since the single network is formed between the NAS 40 and the client 10 by setting the IP configuration information into the client PC 10," Roh further teaches at page 3, paragraph [0043] lines When an organization sets up its computer users with a connection to the Internet, an IP address (assign a lease means) must be assigned to each machine. " Therefore, Rod does teaches the recited limitation in claim 17.

Furthermore, the applicant argues that the combination of Roh and Johnson is improper because Roh and Johnson are technically incompatible. In particular, it is an express object of Roh to remove network address translation (NAT) from a modem. In direct contrast, Johnson discloses a gateway device (acting as a router and modem) that implements both NAT and DHCP. Thus combining the gateway device of Johnson with the modem of Roh would require fundamental changing the principle of operation of Roh. The examiner disagrees. Johnson clearly teaches at page 2, paragraph [0023],

"The different network can be another private network and/or a public network such as the Internet. The gateway device also implements dynamic network address configuration (e.g., DHCP) of other devices 104." The combination of the gateway device of Johnson with the modem of Roh would not require fundamental changing the principle of operation of Roh. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D. Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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